

1 ~~13.~~ (Amended) A method for an interrogator reading one or
2 more RFID transponders in a field comprising the steps of:

3 a. providing a carrier signal;
4 b. detecting the presence of at least one transponder;
5 c. receiving data from all active transponders in the field;
6 d. determining whether the interrogator has received a
7 valid data transmission; and

8 e. upon determining an invalid data transmission,
9 informing [modifying the carrier signal to inform] all active transponders
10 in the field that there was an incomplete read, the informing including
11 suppressing the carrier.

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13 ~~14.~~ (Amended) The method recited in claim ~~13~~, wherein steps
14 (c) and (d) are iteratively repeated until the interrogator determines that
15 it [is] has read the complete data for each transponder in the field.

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17 ~~18.~~ (Amended) The method as recited in claim ~~14~~, wherein the
18 step of determining whether the interrogator has received an [a] invalid
19 data transmission comprises detecting the interrogator's inability to
20 compute a proper synchronization word, a proper CRC, or a [an] proper
21 word length.
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1 7/ 19. (Amended) The method as recited in claim 14, wherein the
2 step of informing active transponders in the field that there was an
3 incomplete read [modifying the carrier signal in a predetermined manner]
4 comprises suppressing the carrier signal for a predetermined number of
5 clock cycles.

6 8/ 20. (Amended) The method as recited in claim 14, wherein the
7 step of informing active transponders in the field that there was an
8 incomplete read [modifying the carrier signal] is performed prior to the
9 transponder sending its complete data transmission.
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11 9/ 21. (Amended) The method as recited in claim 20 wherein the
12 step of informing active transponders in the field that there was an
13 incomplete read [modifying the carrier signal] is performed substantially
14 simultaneously upon the determination that invalid data transmission has
15 been received.
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19 Please add new claims as follows.
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13--25. A method for an interrogator reading one or more RFID transponders in a field, the interrogator including a demodulator, the method comprising:

providing a carrier signal;

detecting the presence of at least one transponder, the detecting including receiving data from the demodulator and modifying the carrier signal by suppressing the carrier signal for a predetermined number of clock cycles;

receiving data from all active transponders in the field, the receiving including receiving the data in groups of one or more bits and checking the validity of each group of data as the group is received;

determining whether the interrogator has received a valid data transmission by detecting the interrogator's inability to compute a proper synchronization word, a proper CRC, or a proper word length;

upon determining an invalid data transmission, modifying the carrier signal to inform all active transponders in the field that there was an incomplete read; and

transmitting the complete data for each transponder from the interrogator to a computer system for processing.

14--26. The method as recited in claim 25, wherein the step of modifying the carrier signal is performed prior to the transponder sending its complete data transmission.

1 ~~15~~ 27. The method as recited in claim ~~25~~ ¹³ wherein the step of
2 modifying the carrier signal is performed substantially simultaneously upon
3 the determination that invalid data transmission has been received.

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5 ~~16~~ 28. The method as recited in claim ~~25~~ ¹³ wherein the receiving and
6 the determining whether the interrogator has received a valid data
7 transmission are iteratively repeated until the interrogator determines that
8 the interrogator has read the complete data for each transponder in the
9 field.

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11 ~~17~~ 29. The method as recited in claim ~~28~~ ¹⁶, wherein determining that
12 the interrogator has read the complete data for one of the transponders
13 in the field comprises determining that a CRC is valid and modifying
14 the carrier signal in a predetermined manner.

1830. A method for an interrogator reading one or more RFID transponders in a field, the interrogator including a demodulator, the method comprising:

providing a carrier signal;

detecting the presence of at least one transponder, the detecting including receiving data from the demodulator and modifying the carrier signal in a predetermined manner;

receiving data from all active transponders in the field, the receiving including receiving the data in groups of one or more bits and checking the validity of each group of data as it is received;

determining whether the interrogator has received a valid data transmission; the receiving and the determining being iteratively repeated until the interrogator determines that the interrogator has read complete data for each transponder in the field, the determining that the interrogator has read complete data for one of the transponders including determining that the CRC is valid and suppressing the carrier;

upon determining an invalid data transmission, modifying the carrier signal to inform all active transponders in the field that there was an incomplete read; and

transmitting the complete data for each transponder from the interrogator to a computer system for processing.

19/31. The method recited in claim 30/18, wherein the step of
modifying the carrier signal in a predetermined manner comprises sending
out the carrier signal continuously.

20/32. The method as recited in claim 30/18, wherein the step of
modifying the carrier signal in a predetermined manner comprises
suppressing the carrier signal for a predetermined number of clock cycles.

21/33. The method as recited in claim 32/20, wherein the step of
modifying the carrier signal is performed prior to the transponder
sending its complete data transmission.

22/34. The method as recited in claim 32/20 wherein the step of
modifying the carrier signal is performed substantially simultaneously upon
the determination that invalid data transmission has been received.

23/35. The method as recited in claim 30/18, wherein the step of
determining whether the interrogator has received an invalid data
transmission comprises detecting the interrogator's inability to compute
a proper synchronization word, a proper CRC, or a proper word length.--